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STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

DAVID F. HALES, Director

Ford - Wixom
Oakland Co.

February 27,1989

Mr. Jerry Amber
Environmental & Safety Engineering Staff
Ford Motor Company
Suite 608
15201 Century Drive
Dearborn, Michigan 48128

Re: Ford Wixom Assembly Plant
Sludge Excavation Area

Dear Mr. Amber:

As you are aware, MDNR split samples collected from Wixom Assembly Plant's paint sludge excavation with you last May, 1988. Your soil samples were analyzed in-house for total metals. The DNR soil samples were sent to TMA, Inc., located in Ann Arbor, Michigan, for analysis.

When MDNR received the laboratory results from both agencies, our review generated questions as to whether Soil Quadrant #6, located in the bottom southwest corner of the pit, was adequately cleaned. Ford's analysis showed total lead concentrations of 33.3 mg/kg in their Quadrant #6 sample. MDNR's analysis showed total lead concentrations of 59 mg/kg. The two samples were collected from locations within inches of one another. 38 mg/kg was the soil clean up level for lead agreed to by Ford and MDNR.

At a meeting held in October, 1988, MDNR met with Ford to discuss the discrepancy in our lead analysis results. It was noted that the difference may have occurred because TMA, Inc. analyzed for lead using ICP rather than AA. Without proper correction for iron and aluminum, two commonly occurring soil constituents, ICP data for lead can be interpreted erroneously. I contacted TMA, Inc. and requested that they re-analyze DNR's Sample #6, this time using AA. The second analysis showed lead concentrations to be 83 mg/kg, a value still above the agreed upon clean up level of 38 mg/kg.

To resolve any remaining question as to adequacy of the TMA analyses, MDNR provided a portion of Sample #6 to Ford for analysis and also submitted a portion of the same sample to the MDNR laboratory in Lansing for analysis. MDNR laboratory results showed a lead concentration of 43 mg/kg, still above the acceptable clean up limit. From phone conversations with Ed Chraszcz, I understand that Ford

Motor Company's laboratory results from that same sample were 25 mg/kg, a value much lower than that obtained by MDNR. As you can see, we still do not concur as to whether Quadrant #6 is adequately cleaned.

Before MDNR offers options on final resolution of this matter, the following must be noted. Several months ago, Ford backfilled the sludge excavation area stating concern that the open excavation endangered the stability of several exposed trestle footings. MDNR agreed that the excavation could be closed, but, with the stipulation that if soil sample results showed a need, MDNR could require that the pit be re-opened and further cleaned. To resolve the continuing question about clean-up adequacy as fairly and expeditiously as possible, MDNR would like you to do the following:

> Send a portion of Ford's original Quadrant #6 soil sample and a portion of MDNR's original soil sample to an agreed upon independent laboratory for AA lead analysis. To expedite matters, I suggest sending the samples to EDI's laboratory in Grand Rapids, Michigan. EDI is the State's contract laboratory, and, as such, has undergone an extensive quality assurance review. To obtain information on EDI, you may contact Jack Dullaghan, at (616) 942-0970. If this approach is used, Ford must agree that this set of laboratory results is final, i.e., (1) if analysis from one of the samples show lead concentrations exceeding 38 mg/kg, Ford shall collect additional soil samples from the Quadrant #6 pit bottom area, splitting samples with MDNR, to evaluate which lead concentration is more representative, or, (2) if both soil samples exceed 38 mg/kg, Ford shall remove additional soils from the Quadrant #6 pit bottom area and retest for lead to determine clean-up adequacy.

If you do not agree to the above described laboratory testing program, MDNR has no alternative but to require further soils removal from the Quadrant #6 pit bottom area. Unless the above described laboratory testing program shows otherwise, MDNR does not feel that the sludge excavation has been satisfactorily cleaned. Please contact our office at (313) 344-9440 no later than March 20, 1989 to discuss your intentions.

I hope that we can continue working closely to resolve this last remaining issue. Your cooperation will be greatly appreciated.

Sincerely,

Virginia L Loselle

Virginia Loselle
Geologist
Environmental Response Division

cc. D. Oyinsan, Supervisor, ERD, Northville
T. Work, ERD, Region III Supv.
J. Truchan, Acting Division Chief, ERD
T. Laird, Law Division
A. Hogarth, Asst. Division Chief, ERD

enclosure

FORD MOTOR COMPANY
STATIONARY SOURCE ENVIRONMENTAL CONTROL OFFICE
LABORATORY REPORT - DATA TABLE

Submitted by: E. Chraszcz

Final Report on Sample(s): 880132 thru 880141

Sample Description: Soil

Plant Name: WIXOM

Area Sampled: PAINT SLUDGE EXCAVATION

Sampling Objective: Verification of paint sludge removal.

Date Received: 05/20/88

Date Completed: 06/29/88

Analytical Objective: Total metals, % Solids.

Date Sampled: 05/19/88

SAMPLE IDENTIFICATION & DATE	SSECO LAB #	Total As mg/Kg-Dry	Total Ba mg/Kg-Dry	Total Cd mg/Kg-Dry	Total Cr mg/Kg-Dry	Total Cu mg/Kg-Dry	Total Pb mg/Kg-Dry	Total Hg mg/Kg-Dry	Total Ni mg/Kg-Dry	Total Se mg/Kg-Dry	Total Ag mg/Kg-Dry	Total Zn mg/Kg-Dry	% Solic
SOIL CORE #1 - 05/19/88	880132	12.1	49.6	1.77	17.0	9.93	8.87	0.046	18.4	0.390	<1	46.8	86.7
SOIL CORE #2 - 05/19/88	880133	10.4	58.3	1.57	19.1	13.8	7.39	0.011	18.3	0.183	<1	43.5	88.8
SOIL CORE #3 - 05/19/88	880134	14.6*	54.2	1.90	17.9	11.9	8.21	<0.023	19.0	0.214	<1	45.2	87.8
SOIL CORE #4 - 05/19/88	880135	9.20	77.9	1.78	19.6	11.7	23.1	0.082	16.6	0.245	<1	46.0	85.5
SOIL CORE #5 - 05/19/88	880136	6.13	147	1.96	20.9	11.7	11.2	0.023	19.0	<0.123	<1	50.9	88.4
SOIL CORE #6 - 05/19/88	880137	6.34	128	2.52	27.6	13.0	33.3	0.036	20.3	0.276	<1	65.8	82.2
SOIL CORE #7 - 05/19/88	880138	11.6	93.0	2.79	24.0	21.7	11.9	<0.041	26.4	1.16	<1	78.3	49.0
SOIL CORE #8 - 05/19/88	880139	13.7	122	1.78	19.2	16.4	85.1	0.097	17.1	0.219	<1	78.1	92.8
SOIL CORE #9 - 05/19/88	880140	7.44	543	2.40	45.5	17.4	261	0.496	22.3	0.207	<1	165	84.6
SOIL CORE #10 - 05/19/88	880141	6.74	341	2.79	46.5	19.4	101	0.174	19.4	0.295	1.55	170	80.6
DETECTION LIMITS		<0.2	<20	<1	<5	<5	<5	<0.02	<5	<0.2	<1	<5	0.1
DIGESTION/ANALYSIS METHODS - Notes #3 & #4		3050/7061	3050/6010	3050/6010	3050/7190	3050/6010	3050/7420	7471	3050/6010	3050/7741	3050/6010	3050/7950	209F(3)

* - Value was calculated from the average of two samples.
(1) - Test Methods for Evaluating Solid Waste, 2nd. Ed., U.S.E.P.A., July 1982, (SW846).
(2) - Methods for the Chemical Analysis of Water And Wastes, Revised, March 1983, (EPA 600/4-79-020).
(3) - Standard Methods for the Examination of Water and Wastewater, 16th. Ed., 1985.
(4) - Test Methods for Evaluating Solid Waste, 3rd. Ed., U.S.E.P.A., Sept. 1986, (SW846).

ANALYST Robert W. Singer

DATE 8/24/88

Client I.D.: #6
ERG Sample No.: 05/187363
Matrix: SOLID
Date Sampled: 05-19-88

Parameter	Result	Units
Trichloroethene	< 5	ug/Kg
Trichlorofluoromethane	< 5	ug/Kg
Vinyl chloride	<10	ug/Kg
ALUMINUM	14000	mg/Kg
ARSENIC	<7.0	mg/Kg
BARIUM	110	mg/Kg
BERYLLIUM	0.67	mg/Kg
CADMIUM	2.6	mg/Kg
CHROMIUM	26	mg/Kg
COBALT	8.1	mg/Kg
COPPER	11	mg/Kg
IRON	12000	mg/Kg
LEAD	59	mg/Kg
LITHIUM	22	mg/Kg
MANGANESE	190	mg/Kg
MOLYBDENUM	16	mg/Kg
NICKEL	18	mg/Kg
PCB		
PCB, TOTAL	<0.020	mg/Kg
PCB 1242	<0.020	mg/Kg
PCB 1248	<0.020	mg/Kg
PCB 1254	<0.020	mg/Kg
PCB 1260	<0.020	mg/Kg
PHENOLS	<0.10	mg/kg
PHOSPHATES, TOTAL	210	mg/Kg
SELENIUM	<3.5	mg/Kg
TITANIUM	200	mg/Kg
VANADIUM	38	mg/Kg
ZINC	65	mg/Kg

Client I.D.: #10
ERG Sample No.: 05/187364
Matrix: SOLID
Date Sampled: 05-19-88

Parameter	Result	Units
VOLATILE DICHLORBENZENES		
1,2-Dichlorobenzene	< 5	ug/Kg
1,3-Dichlorobenzene	< 5	ug/Kg
1,4-Dichlorobenzene	< 5	ug/Kg
VOLATILE PRIOR. POLL. (NO DCB)		
Acrolein	<25	ug/Kg
Acrylonitrile	<25	ug/Kg
Benzene	< 5	ug/Kg
Bromodichloromethane	< 5	ug/Kg
Bromoform	< 5	ug/Kg

TMA
Thermo Analytical Inc.

TMAIERG
117 North First Street
Ann Arbor, MI 48104-1399
313/662-3104

December 8, 1988

Michigan Department of Natural Resources
505 W. Main
Northville, MI 48167
Attn: Virginia Loselle

Dear Ginny:

Enclosed you will find the AA/Flame and ICP results for the samples received May 24, 1988, the QC reports from the first analysis and the rerun analyses.

Date of Analysis		07-08-88 Previous Analysis	10-29-88 ICP	11-21-88 AA/Flame
TMA/ERG #	Client I.D.			
05/189359	Black	50	13	<10
05/189360	#1	59	<5.0	<10
05/189361	#3	45	<5.8	<10
05/189362	#5	43	<5.7	<10
05/189363	#6	59	66	83
05/189364	#10	59	72	68

The problem may have been in digestion or the interference correction on the ICP. The samples were not used as Quality Control in the first digestion, we practice 10% + 1 quality control for all spikes and duplicates. We use random choice when the digestion set includes many different projects. If we had used one of the MDNR samples as QC we may have spotted a problem. I am sorry for any inconvenience this has caused and for the delay in sending you a written copy of the results.

Sincerely,

Barbara Scribner

Barbara Scribner

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL LABORATORY

REPORT Environmental Response Div.
TO District #14
505 W. Main
Northville, MI. 48167
ATTEN GINNY LOSELLE

LABORATORY WORK ORDER # 88-12-076
WORK ID FORD WIXOM
P.O. # 01990 COST $ 23[illegible]00
RECEIVED 12/15/88 CLIENT ER NORTHVILL
REPORTED _____ NUMBER OF SAMPLES 1
LAB CONTACT BN MATRIX SEDIMENT

TEST UNITS	FORD-#6
Aluminium in Sediment mg/kg (dry)	10700
Arsenic in Sediment mg/kg (dry)	3.3
Barium in Sediment mg/kg (dry)	187
Beryllium in Sediment mg/kg (dry)	0.36
Calcium in Sediment mg/kg (dry)	21600
Cadmium in Sediment mg/kg (dry)	K 2
Cobalt in Sediment mg/kg (dry)	5.1
Chromium in Sediment mg/kg (dry)	23
Copper in Sediment mg/kg (dry)	11
Iron in Sediment mg/kg (dry)	15100
Potassium in Sediment mg/kg (dry)	695
Lithium in Sediment mg/kg (dry)	14
Magnesium in Sediment mg/kg (dry)	8700
Manganese in Sediment mg/kg (dry)	190
Molybdenum in Sediment mg/kg (dry)	K 5
Sodium in Sediment mg/kg (dry)	230
Nickel in Sediment mg/kg (dry)	21
Lead in Sediment mg/kg (dry)	43
Selenium in Sediment mg/kg (dry)	K 0.5

TEST UNITS	FORD-86
Titanium in Sediment mg/kg (dry)	35
Vanadium in Sediment mg/kg (dry)	18
Zinc in Sediment mg/kg (dry)	73.5

Report prepared By: L. Hartig 1/18/89

TABLE I

SAMPLE	AEROBIC BACTERIAL COUNT/ml		COLIFORM COUNT/ 100ml		FECAL STREP. COUNT/100ml	YEAST&MOLD COUNT/100ml	PSEUDOMONAS	IRON	IRON BACTERIA
	35C	25C	Total	Fecal					
Raw Water intoDI Unit	20	2	0	0	0	46	PRESENT	>4+	Innumerable: Gallionella sp.
DI Water before degass. No. 1 Unit	290	250	0	0	0	3	None	2+	Moderate: Gallionella sp.
DI Water after degass. (StorageTanks)	10	55	0	0	0	81	None	trace	Few: Gallionella sp.
Stage4:Final Cold Water Rinse (Well Water)	27	46	0	0	0	1	Present	4+	Many: Gallionella sp.
Stage 6; DI Water thru Distribution System	47	130	0	0	0	310	Present	trace	No iron bacteria found in sample
Stage 6: DI Rinse off cars from drain	440	620	0	0	0	13,000	Present	2+	Many: Gallionella sp.
*Well #2	1,000	2,500	0	0	0	47	Present	4+	Many: Gallionella sp.
*Well #3	860	2,200	0	0	0	290	Present	4+	Many: Gallionella sp.

* INCUBATION TERMINATED AT 4 DAYS- REMAINDER OF SAMPLES INCUBATED 5 DAYS

Truchan: [fy.i] 9
Jim Ard / What is the status of the cleanup

V. H. Sussman, Director
Stationary Source Environmental Control
Environmental and Safety Engineering

Ford Motor Company
Suite 608
15201 Century Drive
Dearborn, Michigan 48120

December 21, 1988

Ms. Virginia L. Loselle, Geologist
Michigan Department of Natural Resources
Environmental Response Division
S. E. Michigan Field Office
505 West Main Street
Northville, MI 48167

Dear Ms. Loselle,

Your letter of December 8, 1988 to Jerry Amber came to my attention earlier this week. I called your office (as suggested in your letter) to discuss this matter with you. I was informed that you were on vacation and would not return until the first of the year.

What we are doing at the Ford Wixom Plant involves the excavation and removal of the old wastewater treatment settling basins, that have been obviated by recent activation of the plant's new $14 million above ground wastewater treatment facility. The work we did and are attempting to complete is entirely voluntary and not required by law or regulation. The old settling basins are <u>not</u> regulated units. We are <u>not</u> subject to RCRA or Act 64 permit requirements. "Closure plans" are <u>not</u> required. The Michigan DNR "How clean is clean?" policy is inapplicable.

I understand that at the October 10, 1988 meeting, the MDNR Surface Water Quality Division acknowledged the non-regulated status of the basins to be removed. Ford representatives explained the "closure" standard to be applied (total metals to background plus 3 standard deviations), and we expressed our willingness to share our data with MDNR at any time. We did not agree to submit a "closure plan," nor did we agree to subject the plant to "MDNR permission to backfill approval," as was asked.

We asked our contractor (Encotech) to inform you of the sampling schedule so that split sampling could be obtained. I have been informed that there was one "slip-up" in splitting samples with you. I understand that the situation has been remedied and we will continue to alert your office in advance of field sampling associated with this project.

We have agreed to provide this information, provide split samples and cooperate with you in this matter on a voluntary basis. It is my understanding that there are no statutory requirements for us to do so.

Your letter of December 8, 1988 and the cc's thereof, seem to imply that something we are doing with respect to this project is in violation of statutory or regulatory requirements. If you believe that this is so, I would appreciate obtaining a clear statement to that effect. It is my responsibility to insure that our company operates in full compliance with environmental requirements. If this is not a regulatory matter I would appreciate receiving a statement as to your concerns, so that I may take action to resolve them.

If you wish to discuss this matter, please call me at (313) 323-2895.

Very truly yours,

Victor H. Bussman

cc: Lynne King
Tom Laird
D. Oyinsan
Del Rector
Cathy Schmitt
✓Jim Truchan
Tom Work